Fourth Annual National Harbor Safety Committee Conference

March 5, 2002

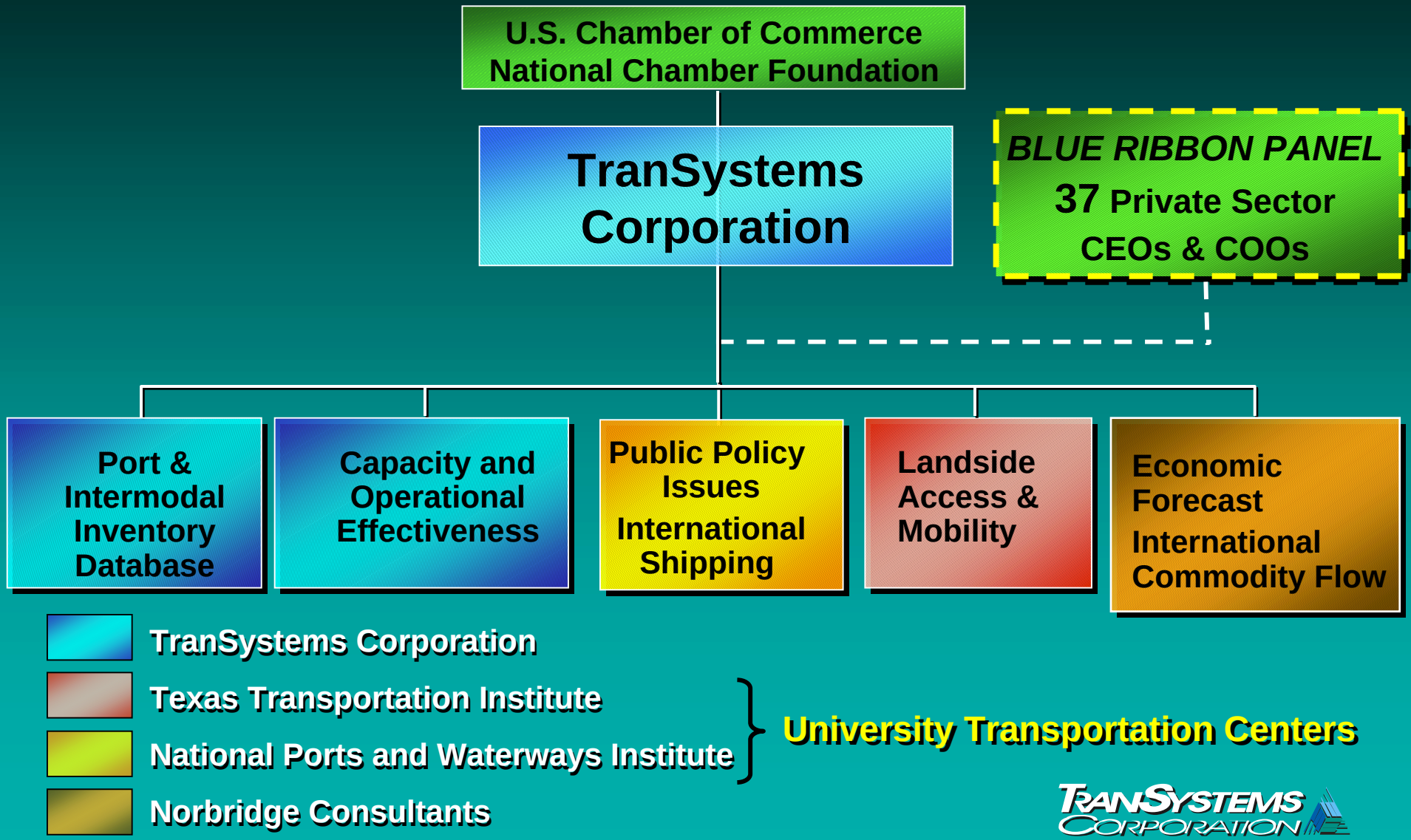
Galveston, Texas

US Chamber of Commerce: Study on North American Port & Intermodal Systems

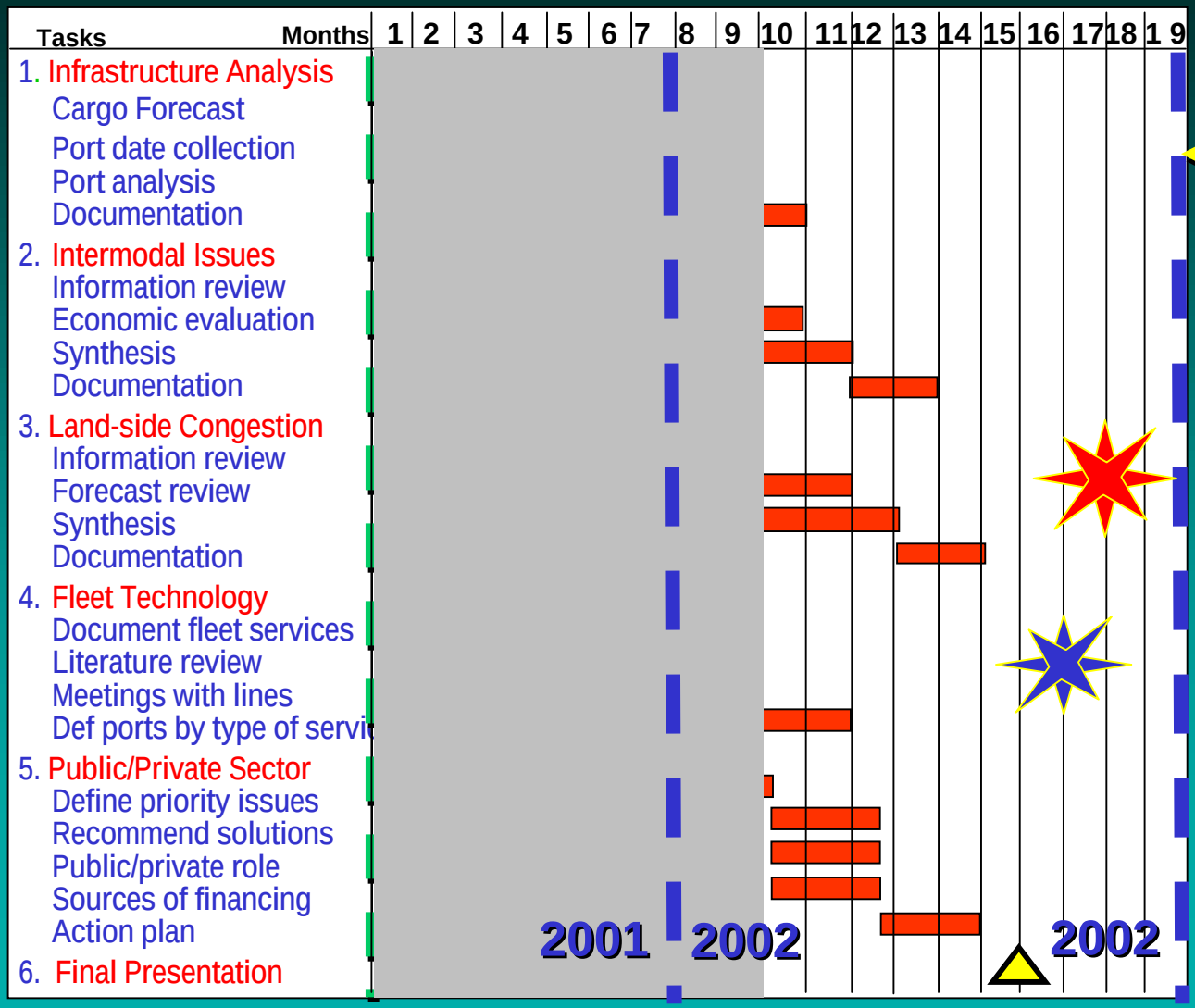
M. John Vickerman
Principal
TranSystems Corporation
Reston, Virginia

Trade and Transportation - Study of North American Port & Intermodal Systems

USCOC Project Organization Chart



US Chamber Study Schedule



2003 TEA 21 Reauthorization

USDOT C&P Report to Congress

US GAO Transport Capacity

USCOC Final Report

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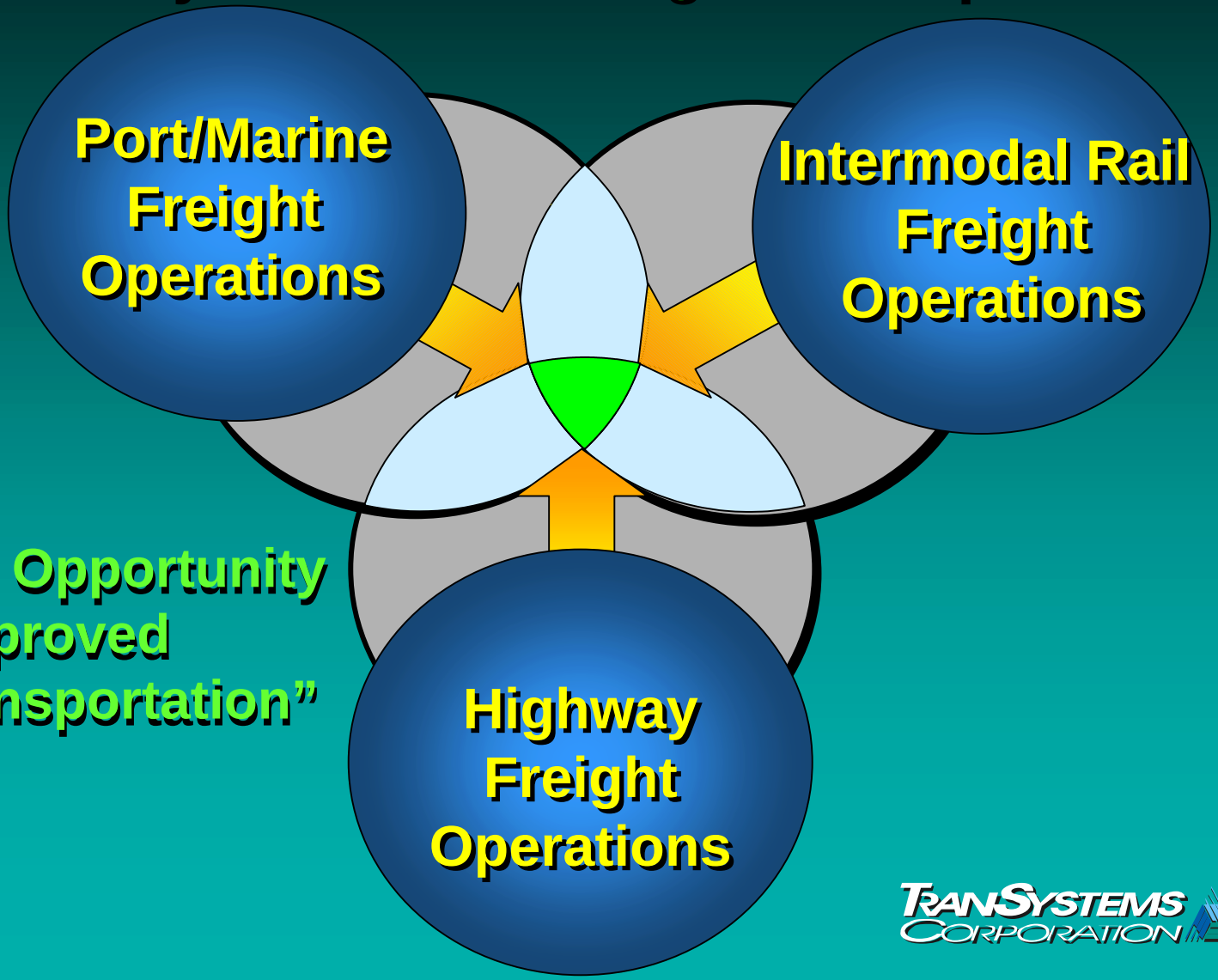
Trade and Transportation - Study of North American Port & Intermodal Systems

A NEXUS for Efficient System Wide Freight Transport”



“A Strategic Opportunity for Improved Freight Transportation”

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Maritime & Intermodal Industry Pressures

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To Be Competitive Today...
Marine/Intermodal
Terminals Must Reduce
Throughput Cost &
Increase Cargo Velocity...
Securely

Trade and Transportation - Study of North American Port & Intermodal Systems

Where's my cargo?

Americas Systems Inc. develops a port system that allows companies to obtain information on shipments

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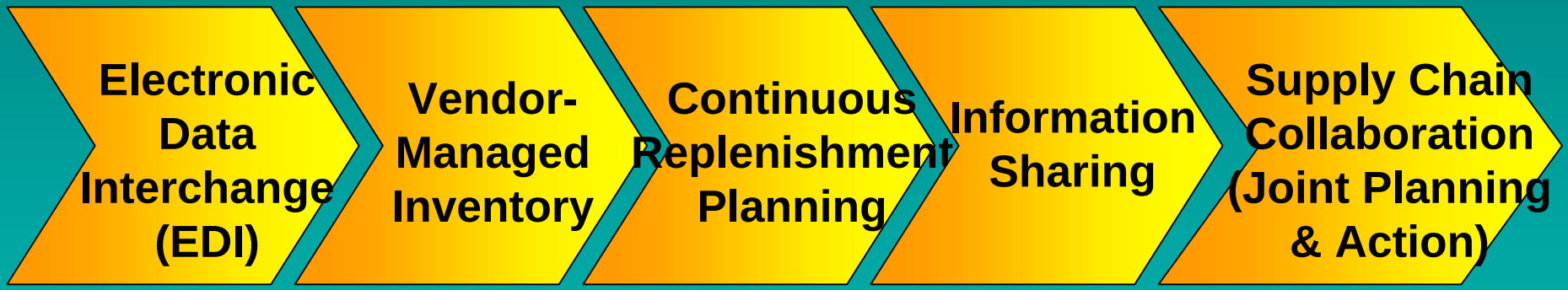
Evolution of Shipper Supply Chain Initiatives…

To Collaborative Joint Planning/Action

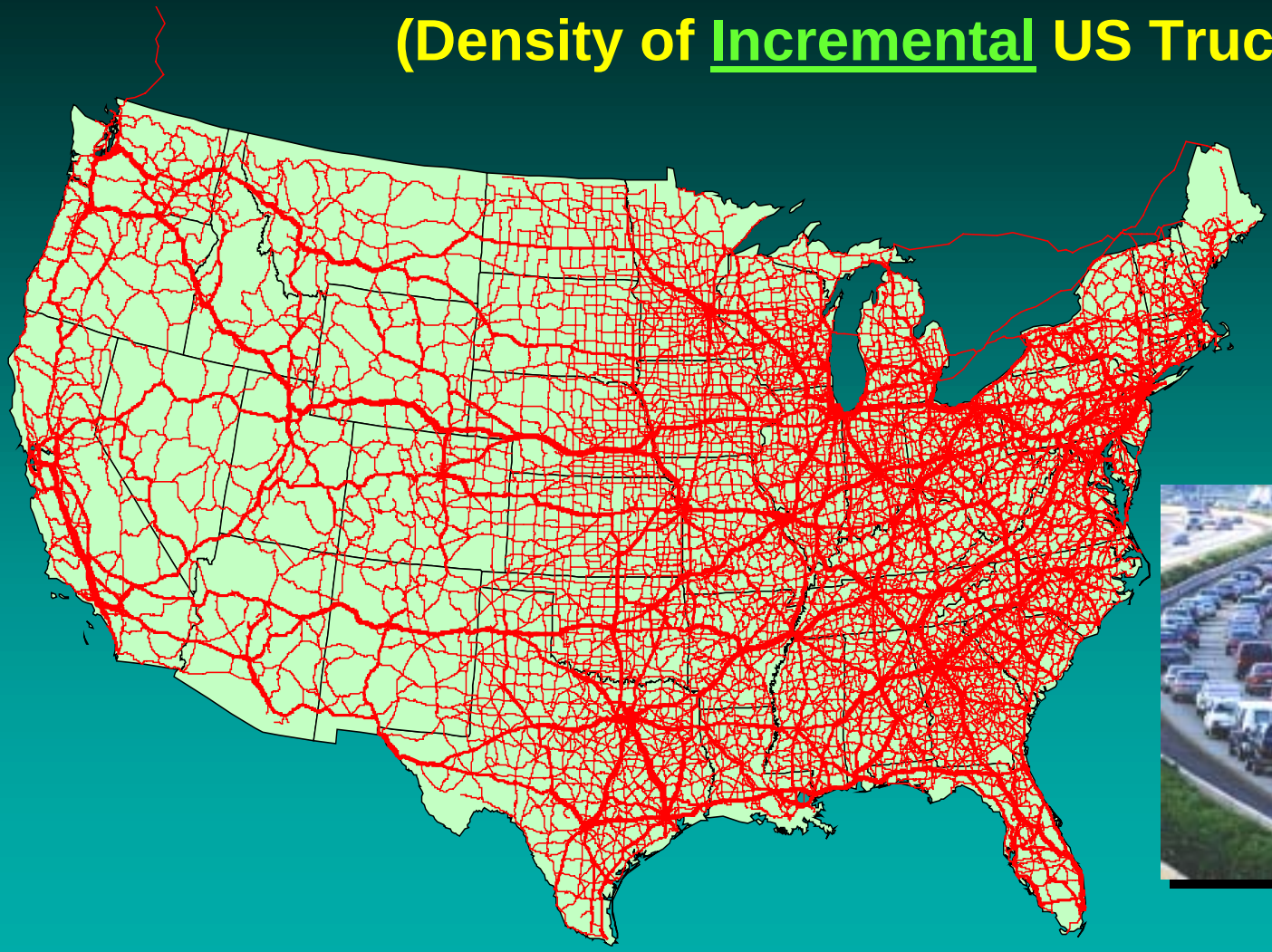


Today's Logistics Truths:

"The customer wants more and is willing to pay less for it."

2020 Truck Traffic Growth on Highways

(Density of Incremental US Truck Tons)



Source: USDOT FHWA Freight Analysis Framework

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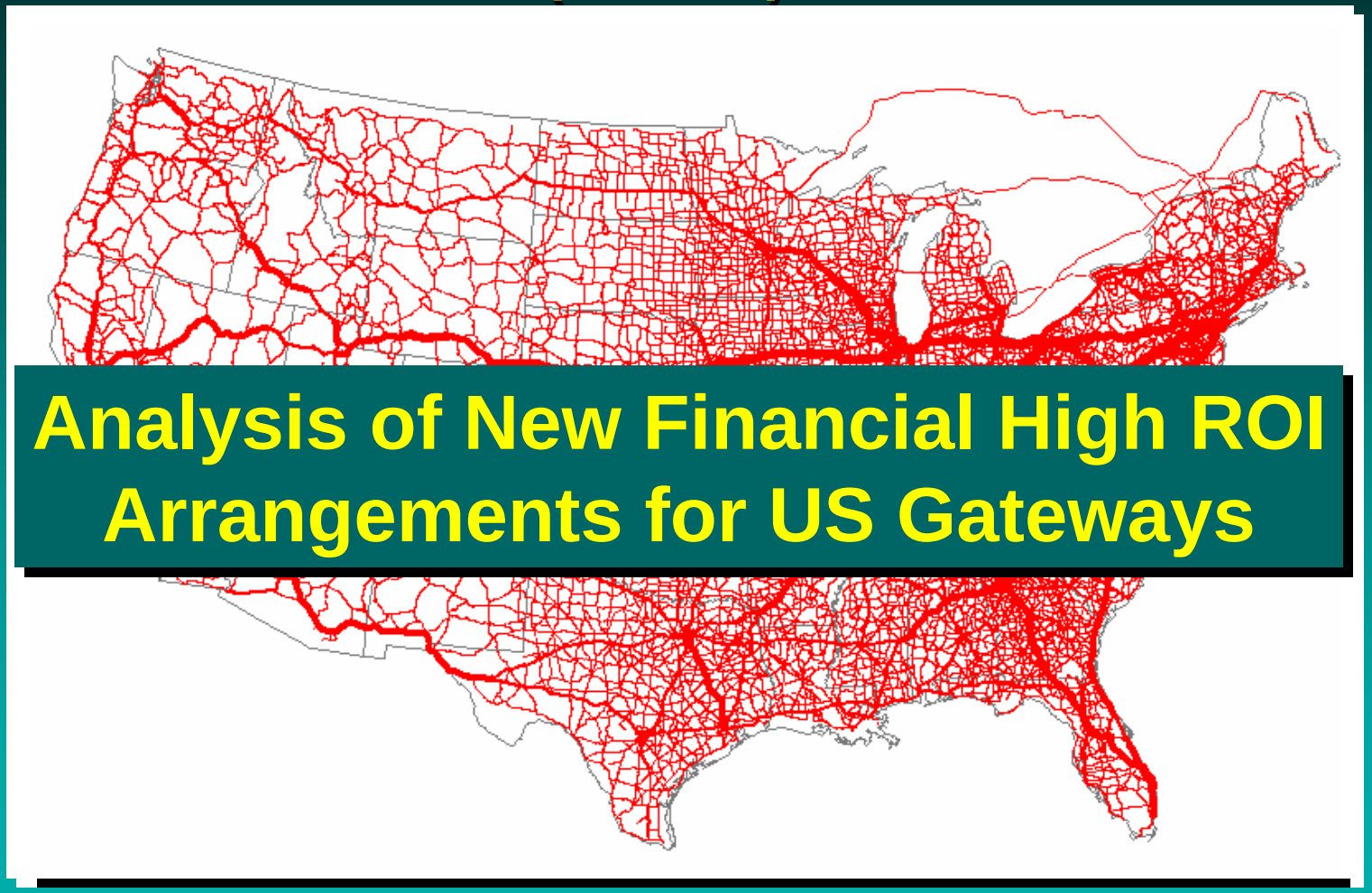
2020 Truck Freight Flows

Trade and Transportation Study of North American Ports and Intermodal Systems

High-Value & Time Sensitive Products

(in Tons)



Analysis of New Financial High ROI Arrangements for US Gateways

Source: USDOT FHWA Freight Analysis Framework

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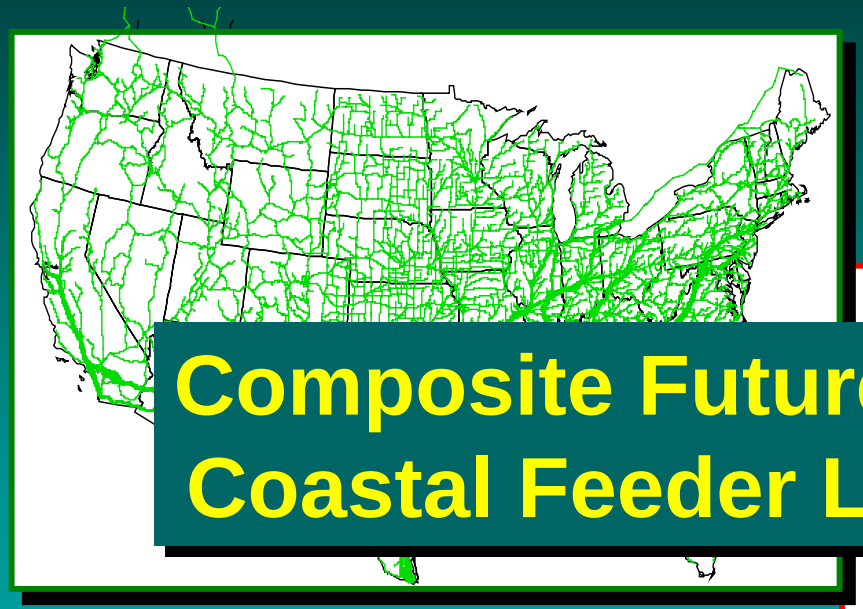
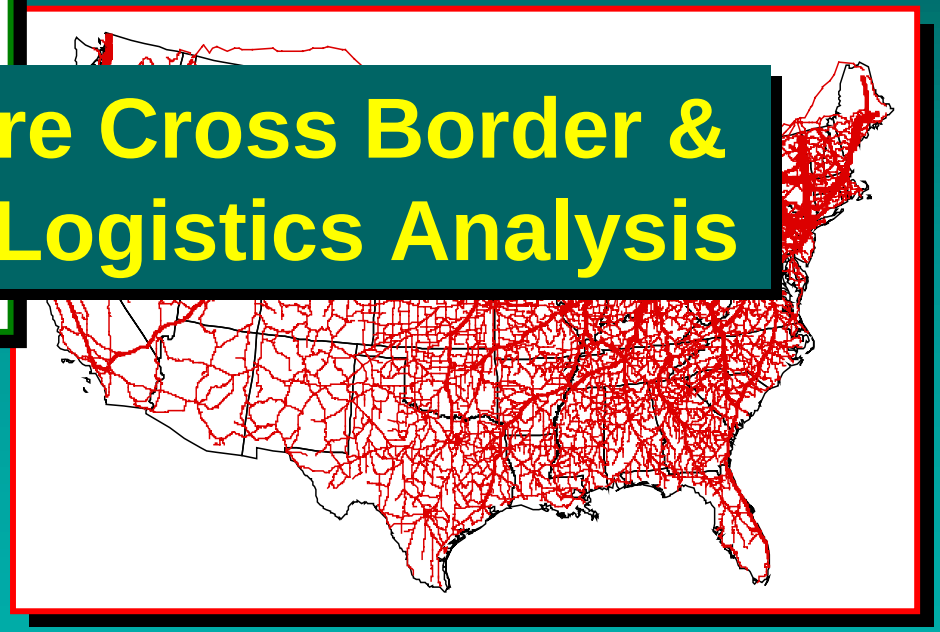
2020 NAFTA
US/Mexico Truck Traffic
US Highway Network (Tons)



2020 NAFTA
US/Canada Truck Traffic
US Highway Network (Tons)

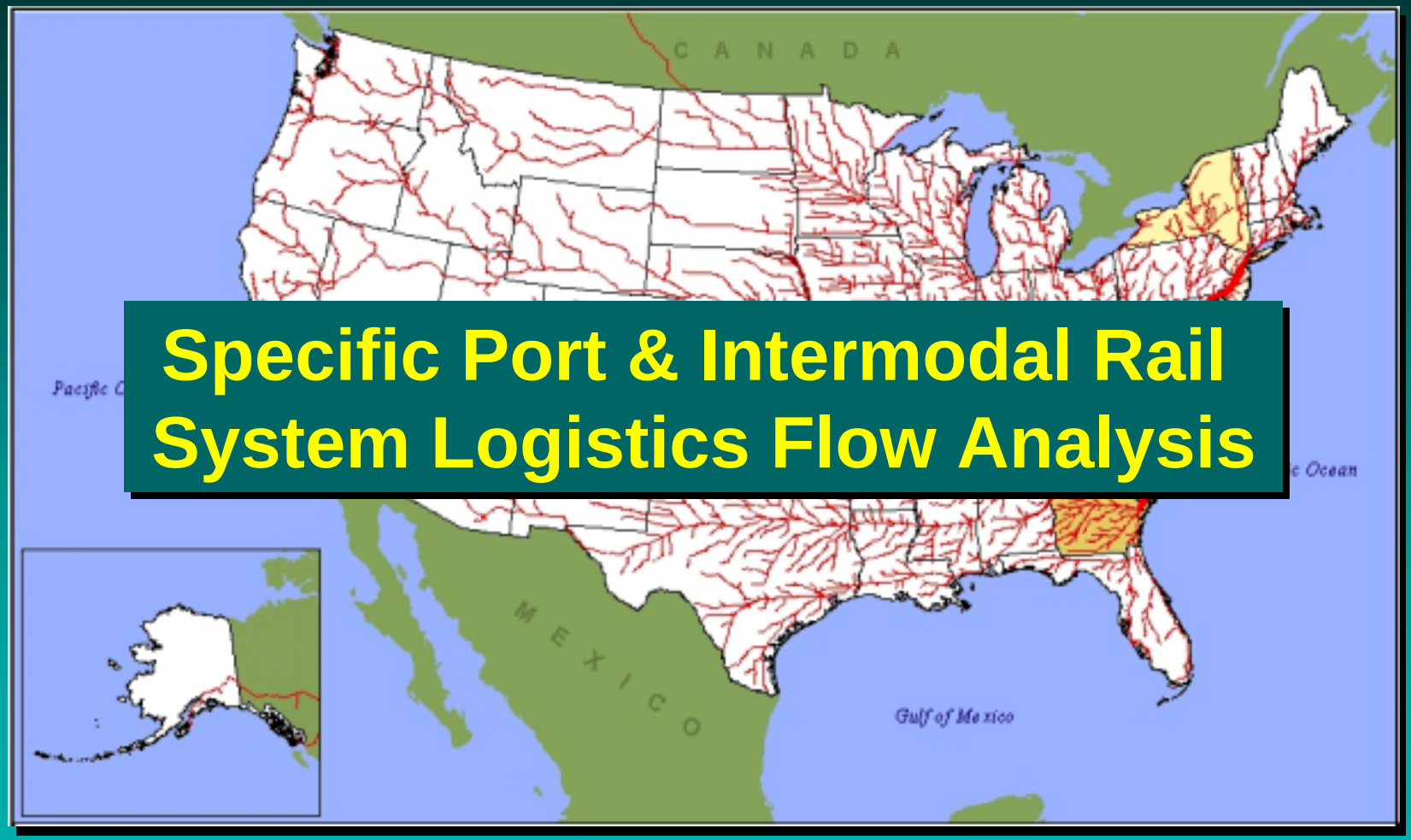


Composite Future Cross Border & Coastal Feeder Logistics Analysis

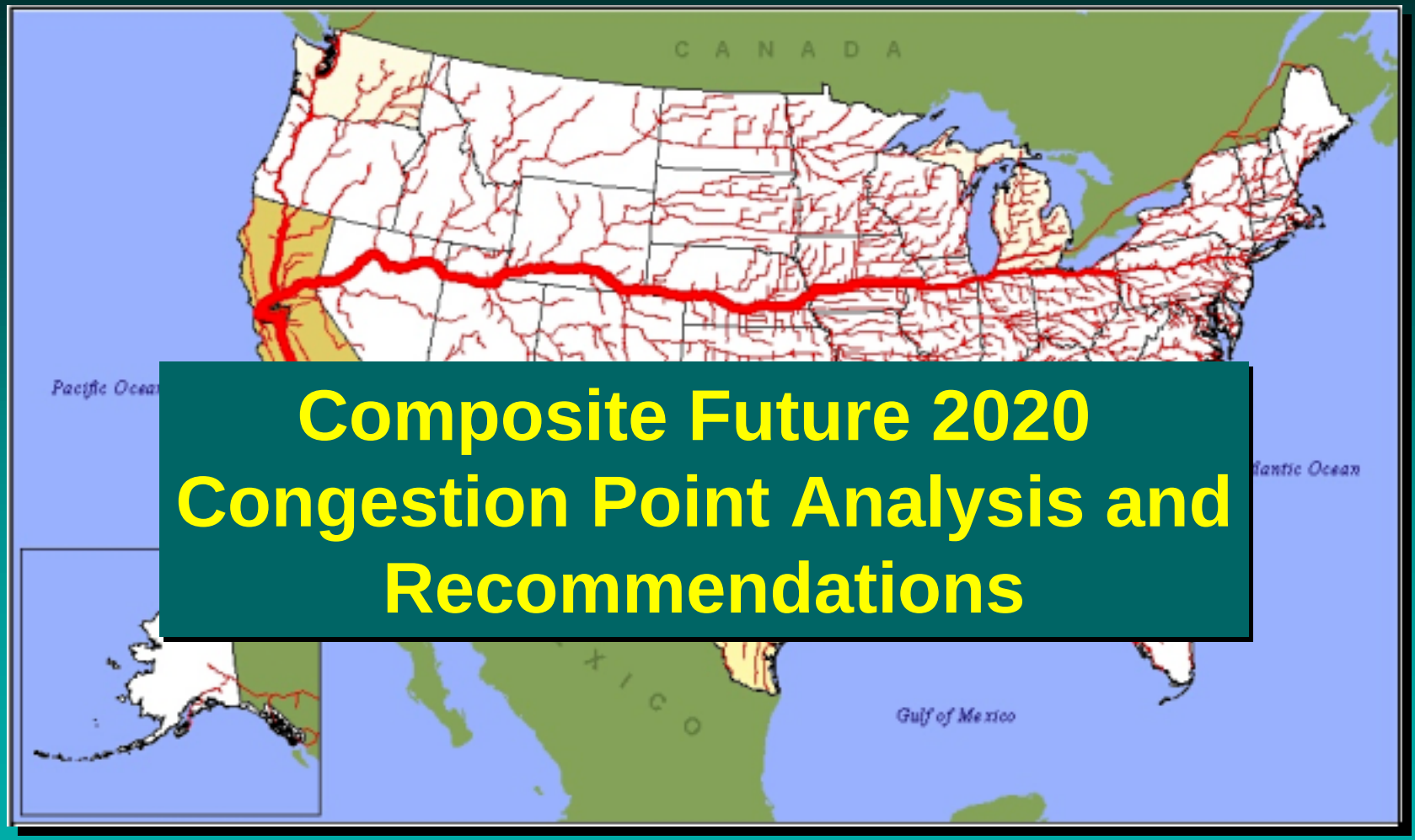
Source: USDOT FHWA Freight Analysis Framework

TranSystems Corporation

Port/Intermodal Specific Capacity Maps



Port Range Competitive Capacity Maps



Composite Future 2020 Congestion Point Analysis and Recommendations

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The Railroad Industry… Since the Staggers Act:

35% less track

32% fewer locomotives

27% fewer railcars

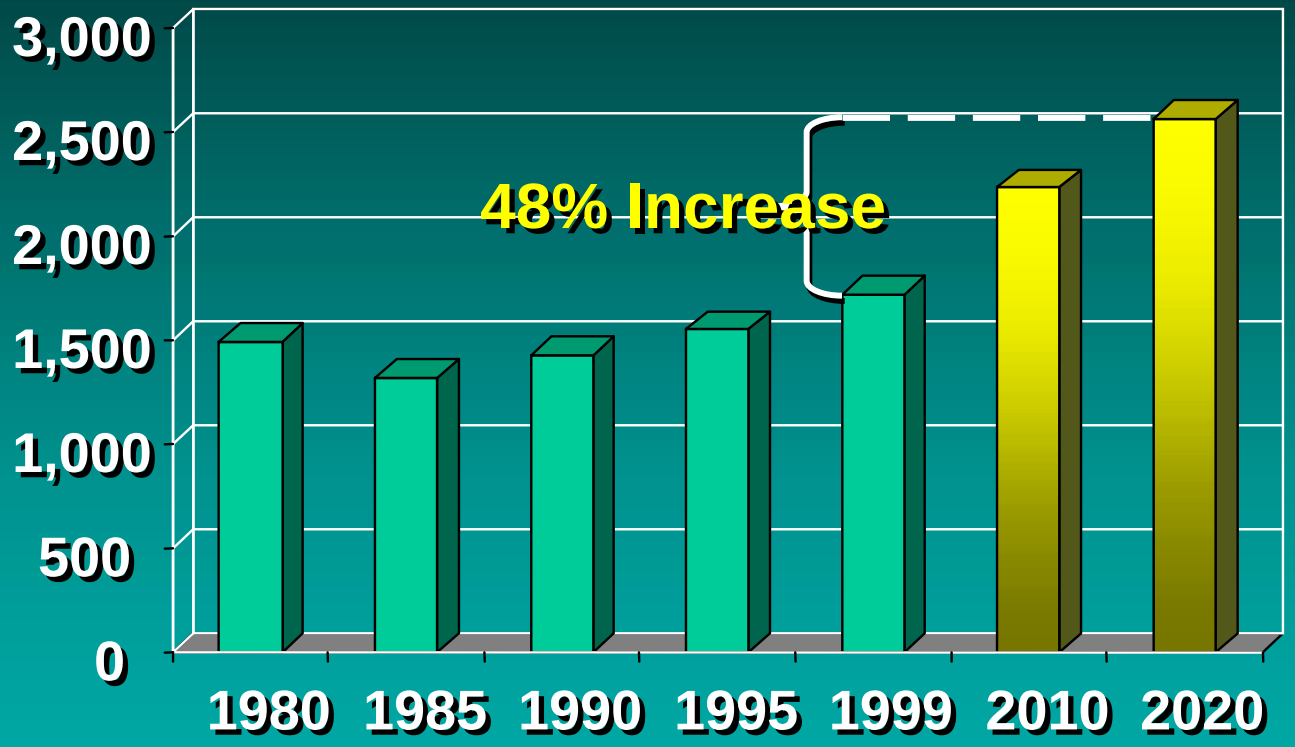
60% fewer employees

But:

well over 50% more freight!

2020 Forecast of US Rail Traffic

(By Origins in Millions of Tons)



Source: FHWA Multi-Modal Freight Analysis,
Framework Project using Reebie Associates 1998 data

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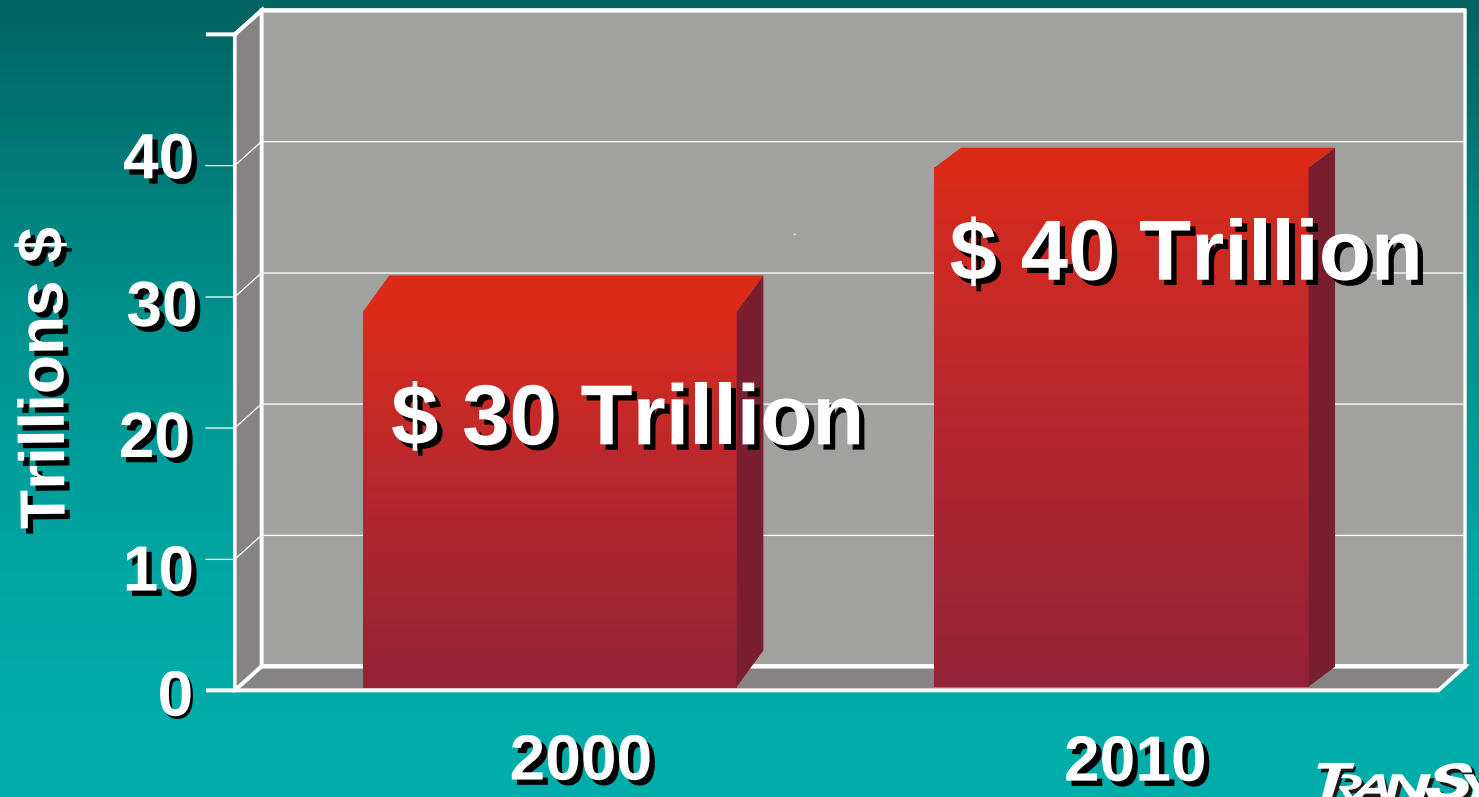
World Bank's "Global Economic Prospects 2001"

World Output will Increase 33% in 10 years



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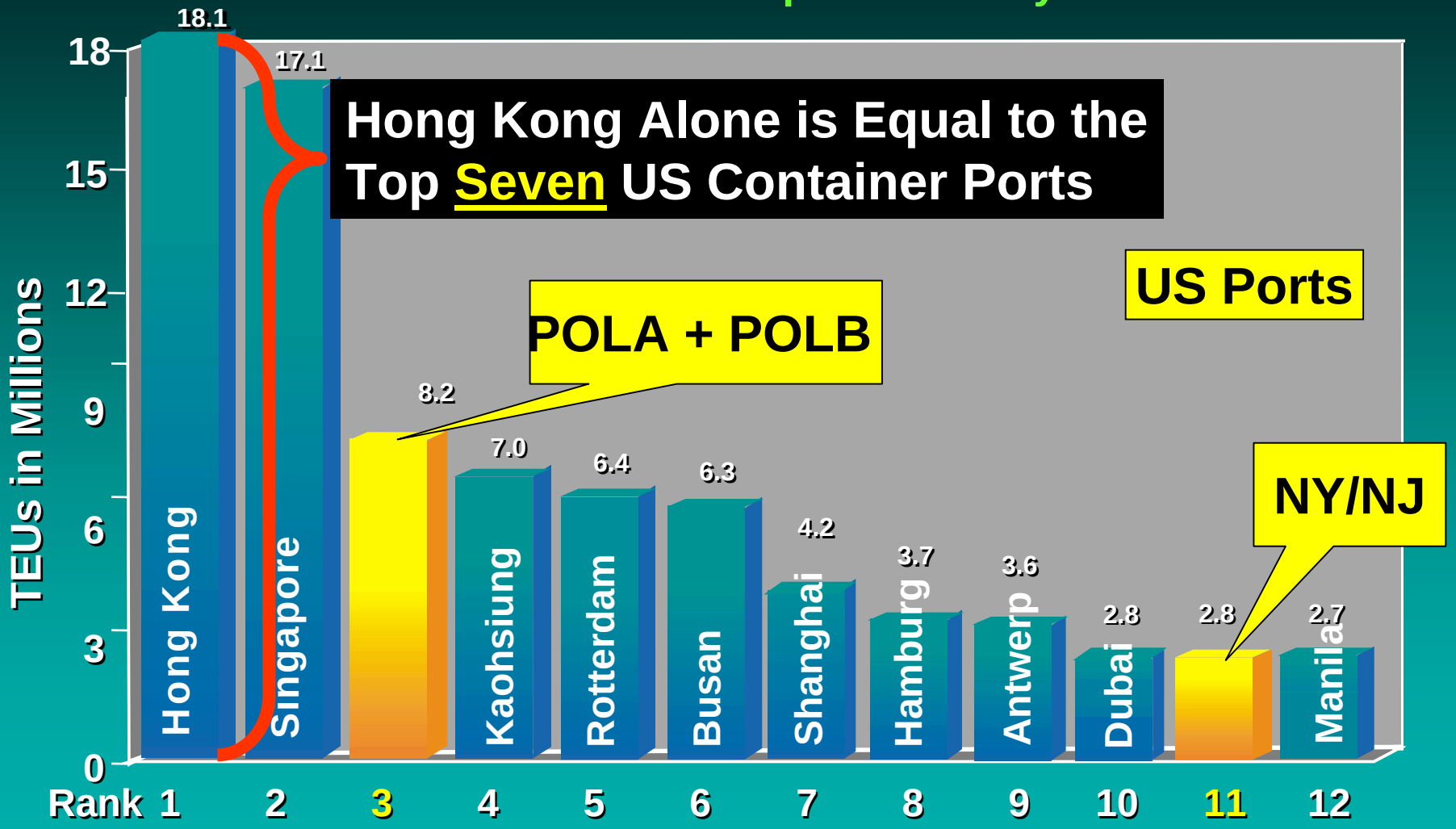
2000 World Container Gateways

"The World's Top 12 Gateways"



Source: 2000 AAPA, Containerisation International Yearbook

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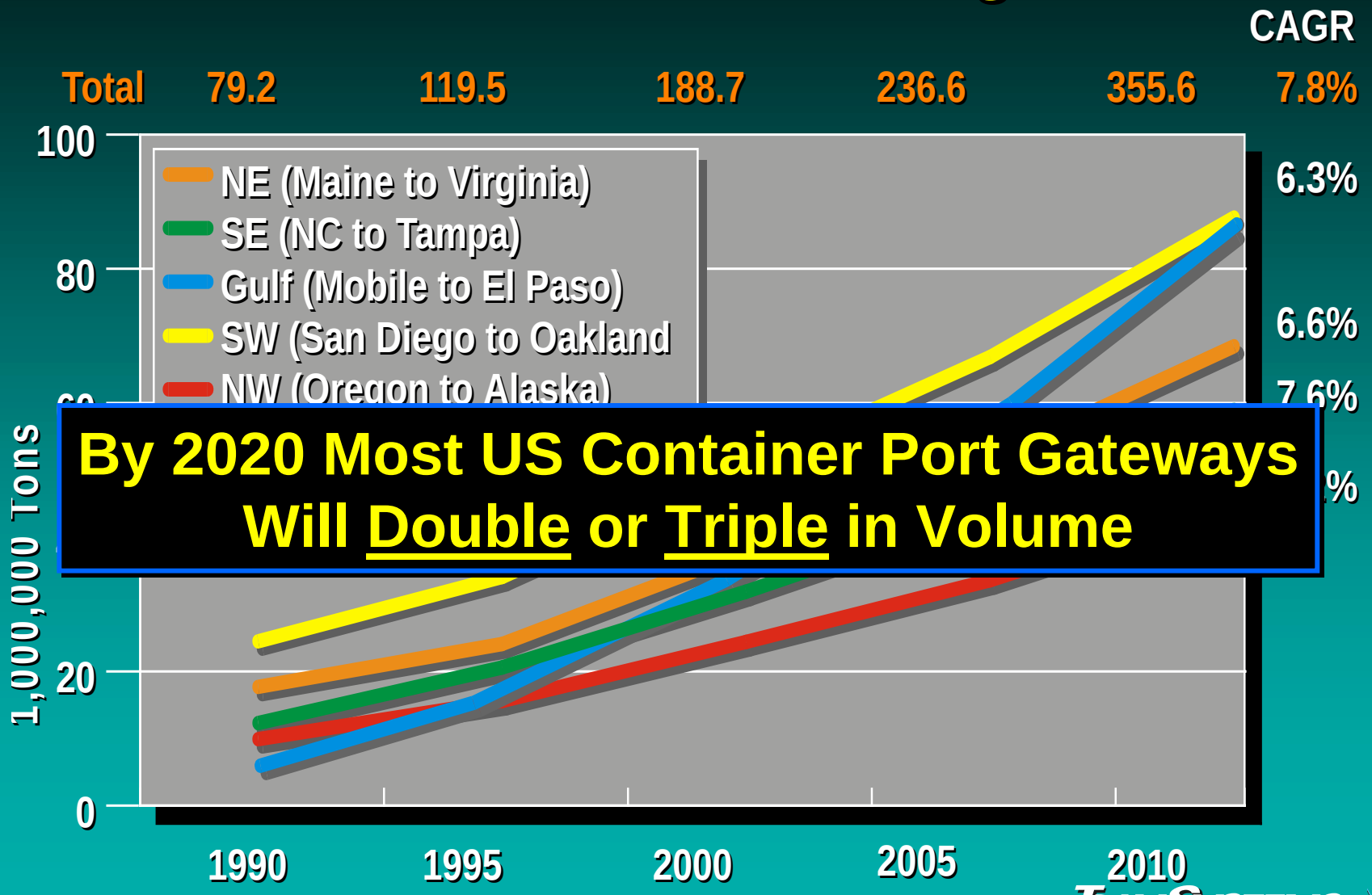
U.S. Containerized Tonnage Forecast



By 2020 Most US Container Port Gateways Will Double or Triple in Volume

Source: DRI/McGraw Hill

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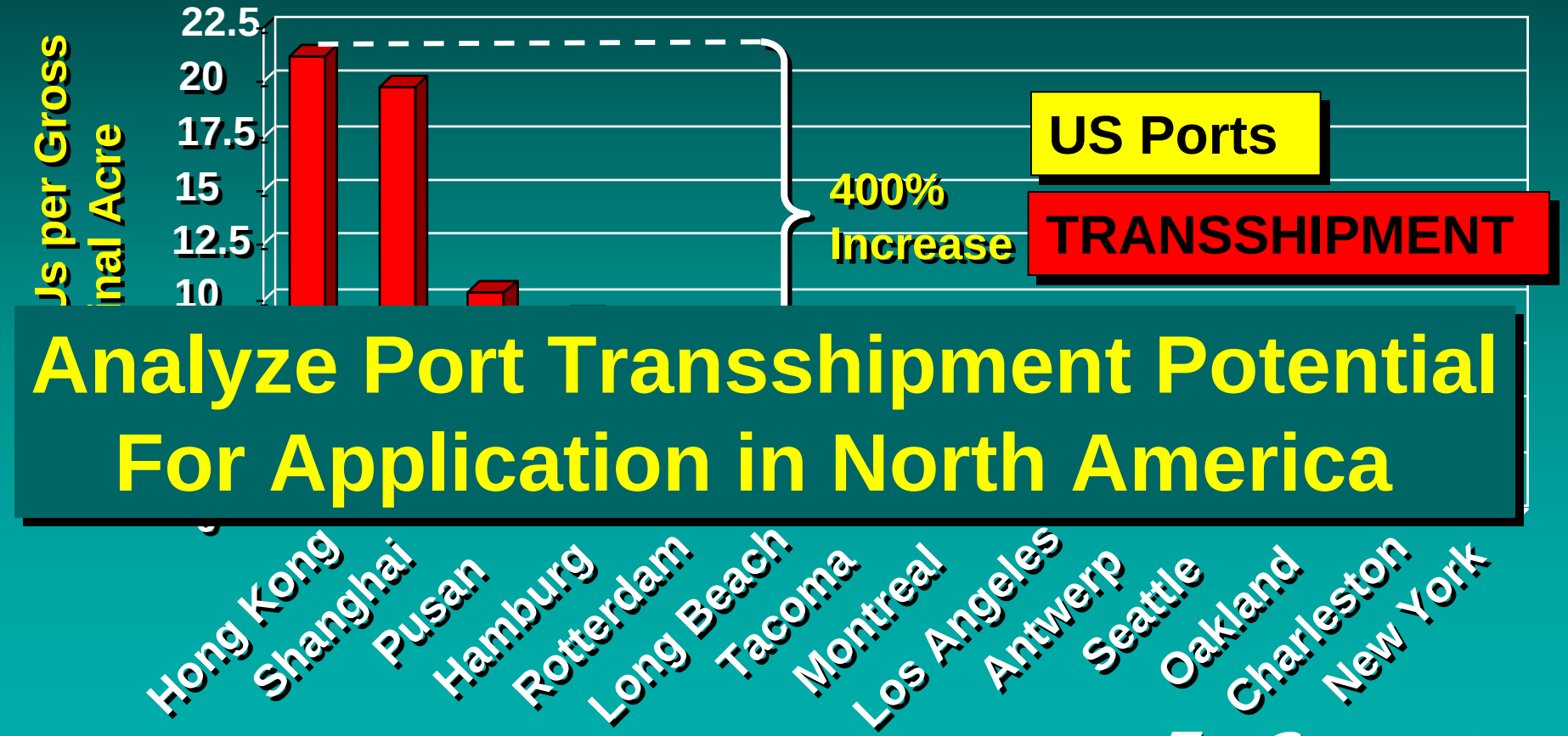
2000 World Container Terminal Productivity

"*Significant Transshipment*"

Throughput per Gross Acre per Year



Analyze Port Transshipment Potential For Application in North America

Source: Norbridge Consultants

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Latin America Trade & Transportation Study (LATTS) – March 2001

Predicts that Port and Intermodal Systems for the 13 Southern US States Will Reach Capacity in 2008 - 2012

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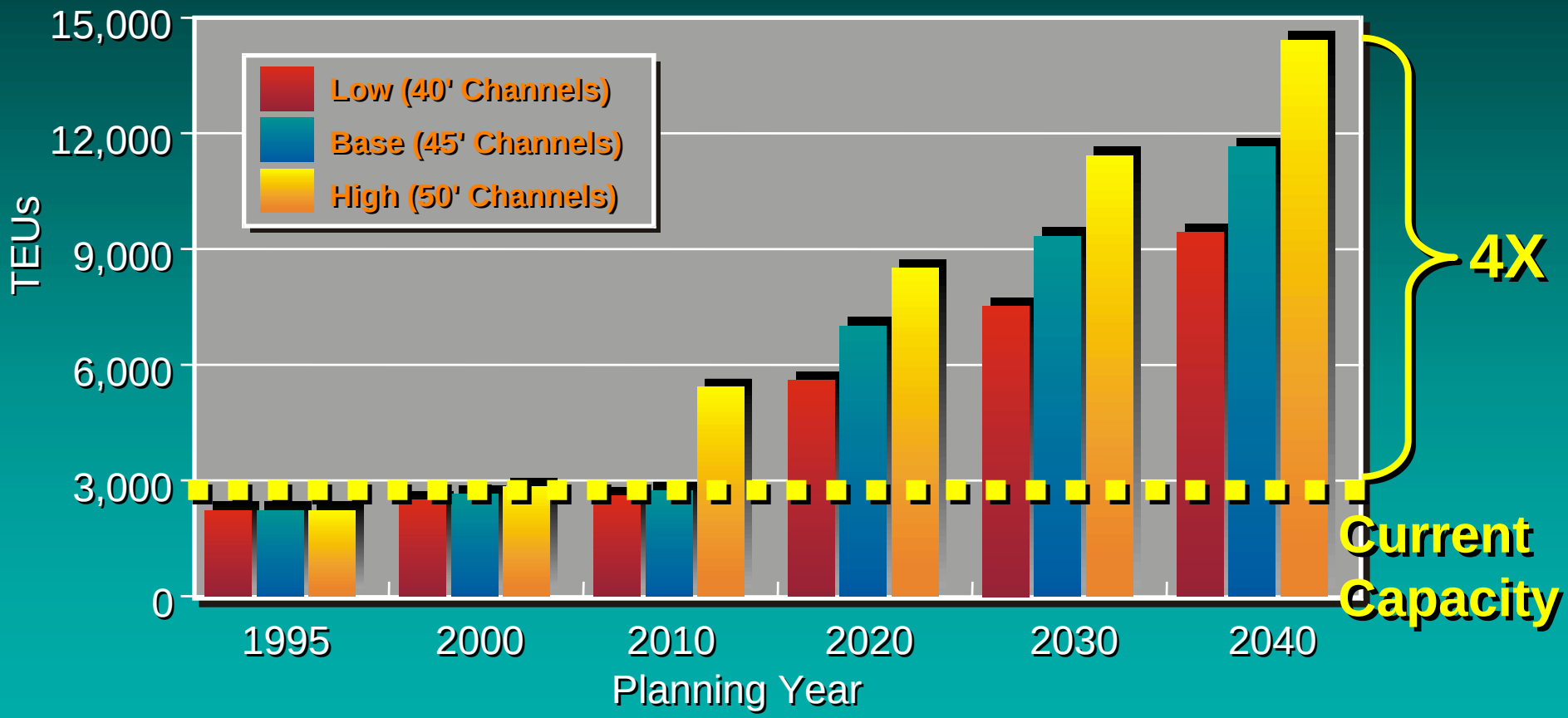
Can North American
Marine & Intermodal
Terminals Handle the
Forecasted
Freight Volumes ?...

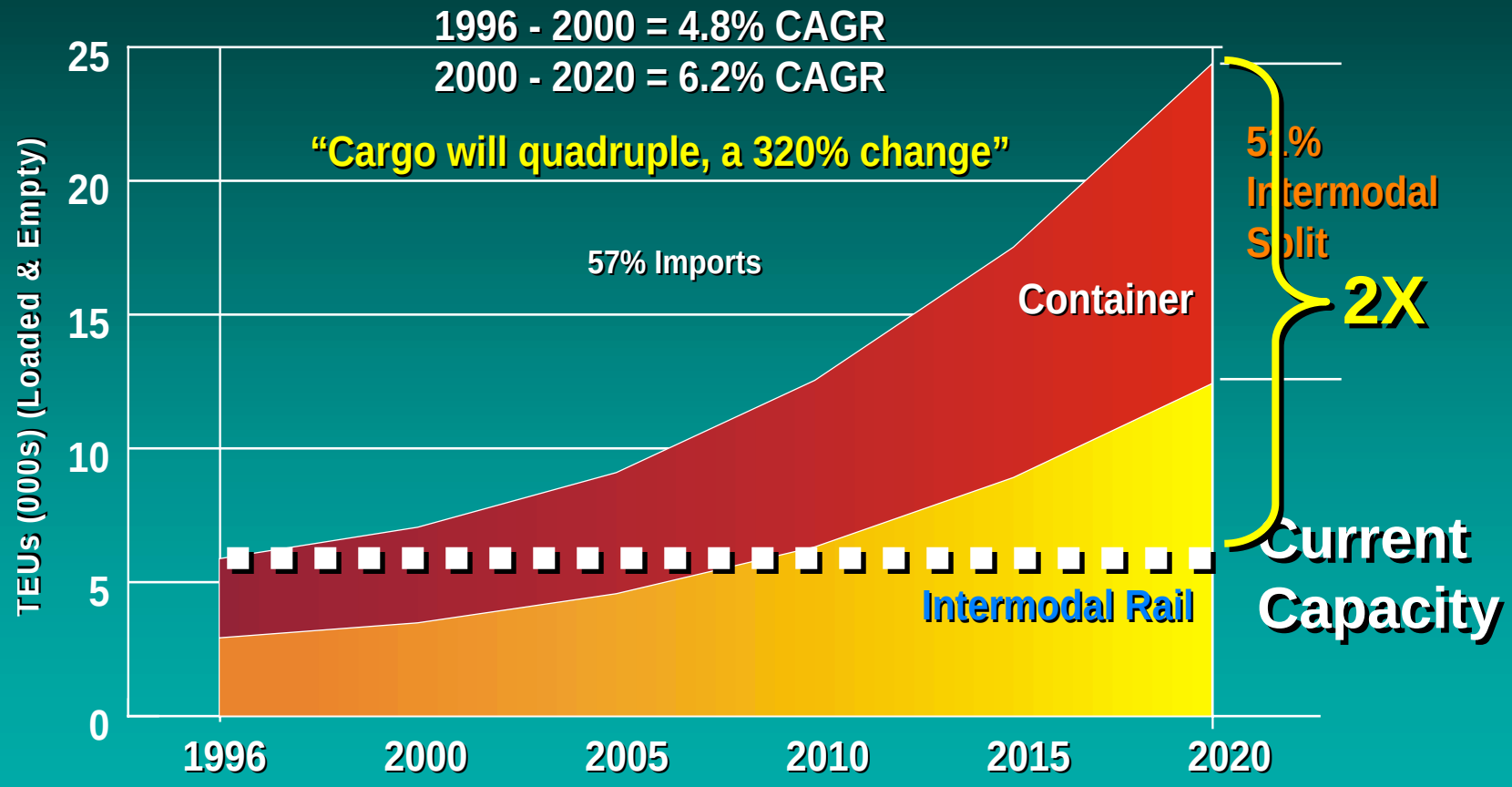
NY/NJ Regional Container Forecast (TEUs)



Source: PANY/NJ,

TranSystems Corporation

Ports of Los Angeles and Long Beach Container and Intermodal 2020 Forecast



(Worse Case: Asian Crisis Steady-State)

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San Pedro Bay Ports of

Ports of Los Angeles and Long Beach

Container Growth Implications:

"At current growth and per acre productivity, in 18 years the two Ports will require 3,624 new acres of container terminal"*

* Source: Port of Long Beach

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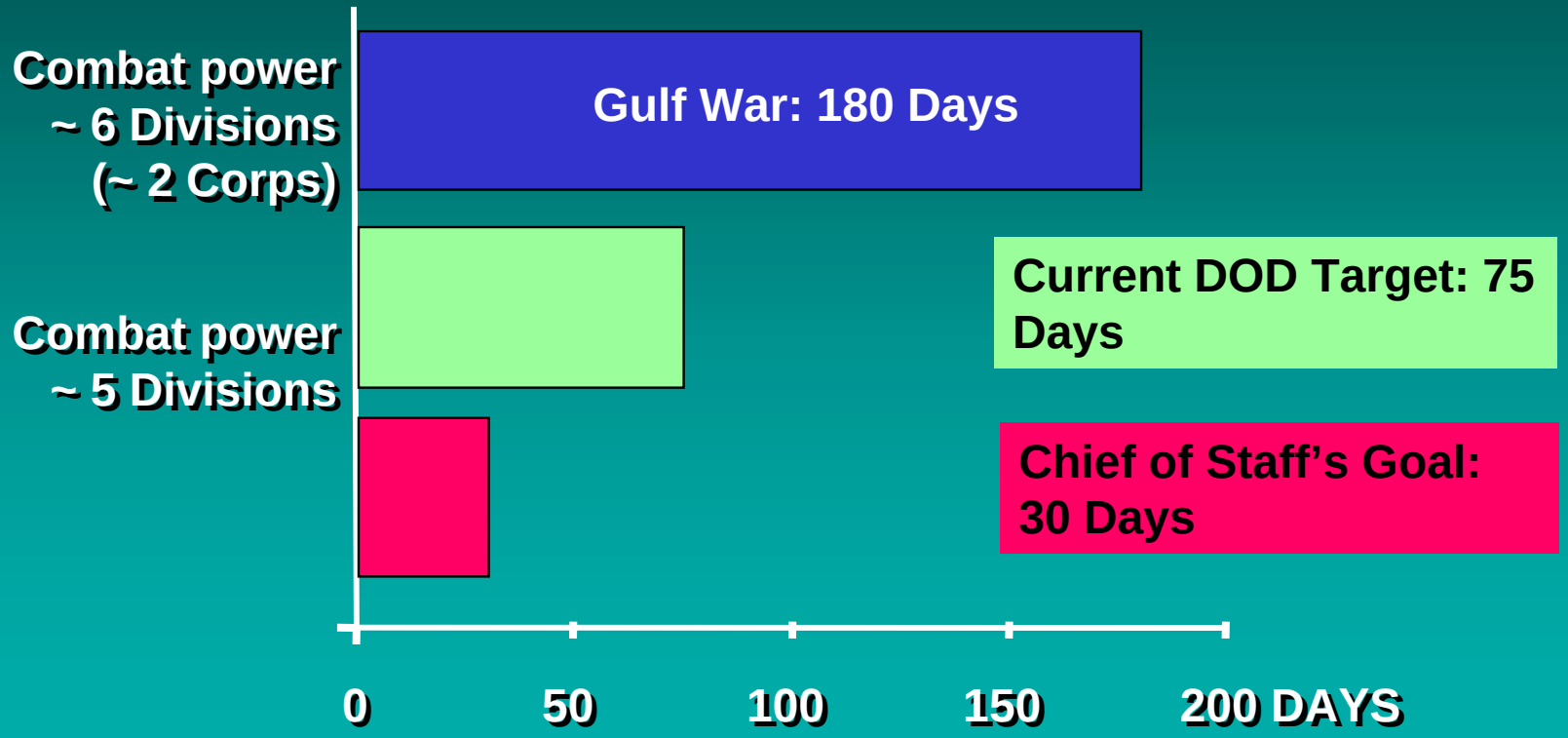
The Army's Strategic Mobility Requirements

(The Military's Goal is to Reduce Deployment Time by 80 Percent… Without Disrupting Commercial Ports)



Source: Adapted from briefing by William Lucas, MTMC, to TRB Annual Meeting, Jan. '00

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Mega Container Vessels

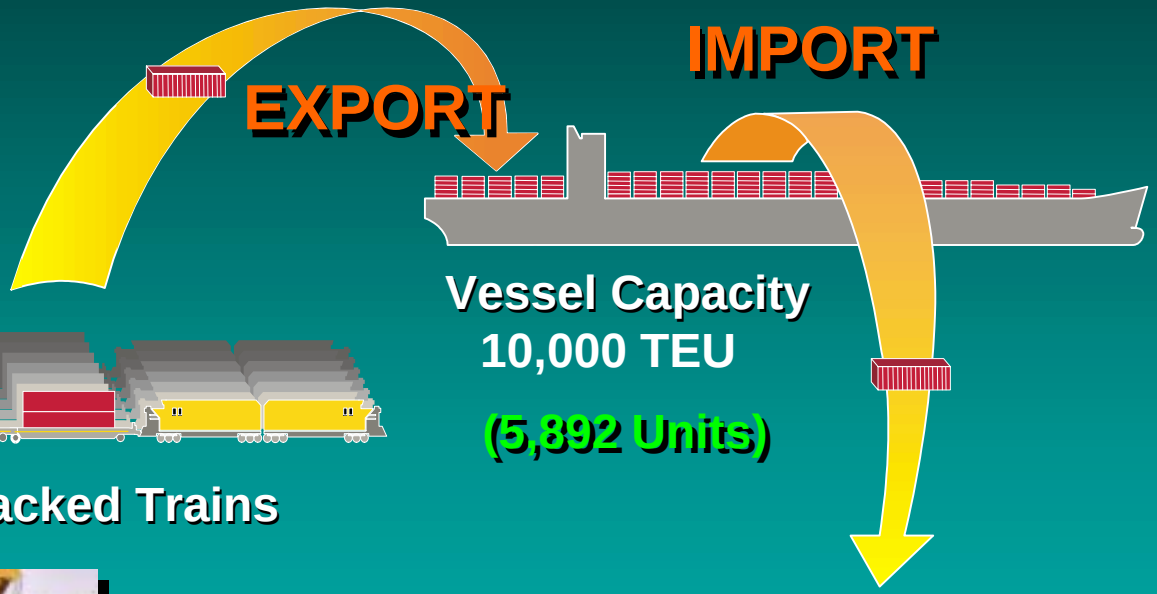
1970 Industry Prediction: "3,250 TEU"

The 2002 Reality:

Regina Maersk	6,000 TEU
Sovereign Maersk	6,600 TEU
21-Wide Planned	8,000 TEU

Near Term Possible: 10,000 – 15,000 TEU

A 10,000 TEU Mega-Container Vessel Can Produce High Intermodal Rail Volumes (One Weekly Vessel Call)



13.4 Double Stacked Trains

13.4 Double Stacked Trains

75% Intermodal Split

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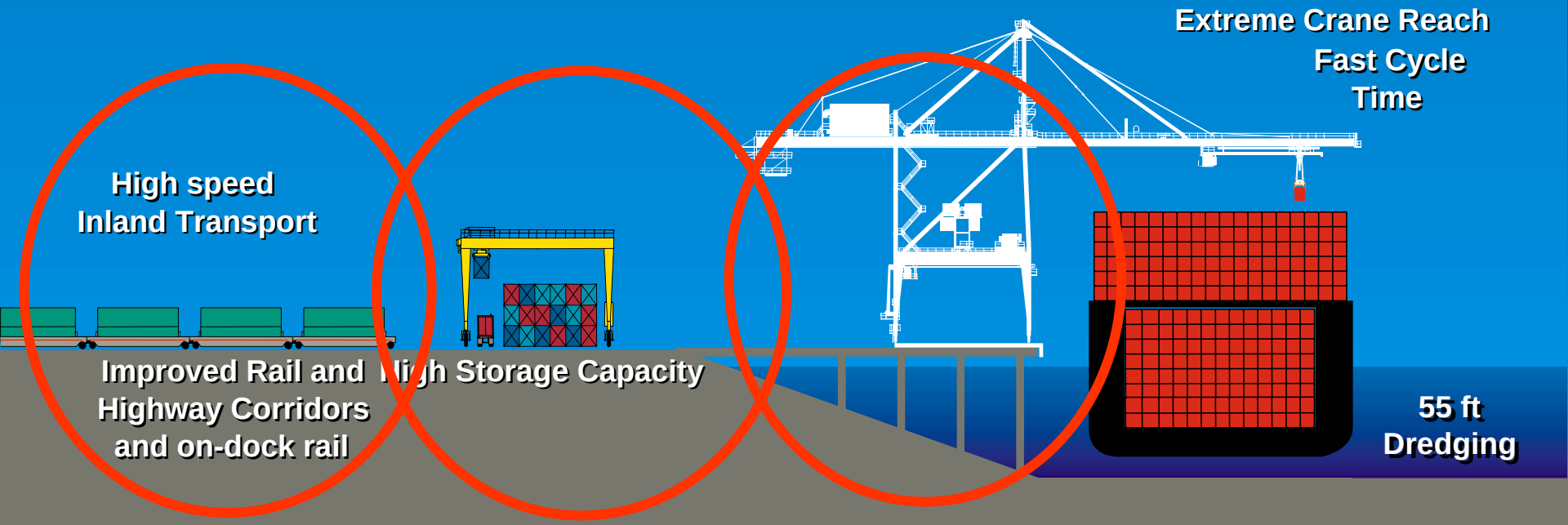
Mega-Ship Terminal Wharf Apron & Container Gate Peaking Characteristics

Can Real Port Capacity be Achieved Through Operating Gates 24/7/365 With Synchronous Inland Freight Depots ?

Emerging Intermodal Rail Strategy:

Inland Intermodal Rail Terminals Running High Speed Smart Shuttle Trains to Tomorrow's Marine Container Terminals Can Substantially Increase Port Terminal Capacity



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Emerging Viable Container On Barge Inland Intermodal Port Potential

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Emerging Port & Intermodal Public Policy Themes

Theme #1: Although we currently have an efficient system of freight transport in the United States, there is substantial room for improvement in our Port & Intermodal Transportation System Efficiency and Productivity.

- **Freight productivity growth & increased system complexity is placing tremendous stress on our national transportation infrastructure. We must develop a consistent measurement of system performance to prioritize our intermodal transportation system improvements.**

- **We must understand how the benefits of system Management/Operating and Information Technologies (IT) can increase port and intermodal terminal productivity.**

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Theme #1: Continued…Although we currently have an efficient system of freight transport in the United States, there is substantial room for improvement in our Port & Intermodal Transportation System Efficiency and Productivity.

- **On a national basis, we need to develop a better real-time freight data tracking system.**

- **Labor productivity and terminal operating practices should be evaluated, and if necessary, pragmatically enhanced to meet the future needs of our national freight transport system.**

Theme #2: Port & Intermodal Transportation System Security has become a public/private national priority issue.

- Improved productivity and transportation system security are not mutually exclusive.

- Promising emerging Information Technologies (IT) could play a key role in enhancing cargo security. The deployment of these technologies could have significant system performance benefits for the intermodal transportation system as a whole.

Port Security & Port Productivity… Are Not Mutually Exclusive!

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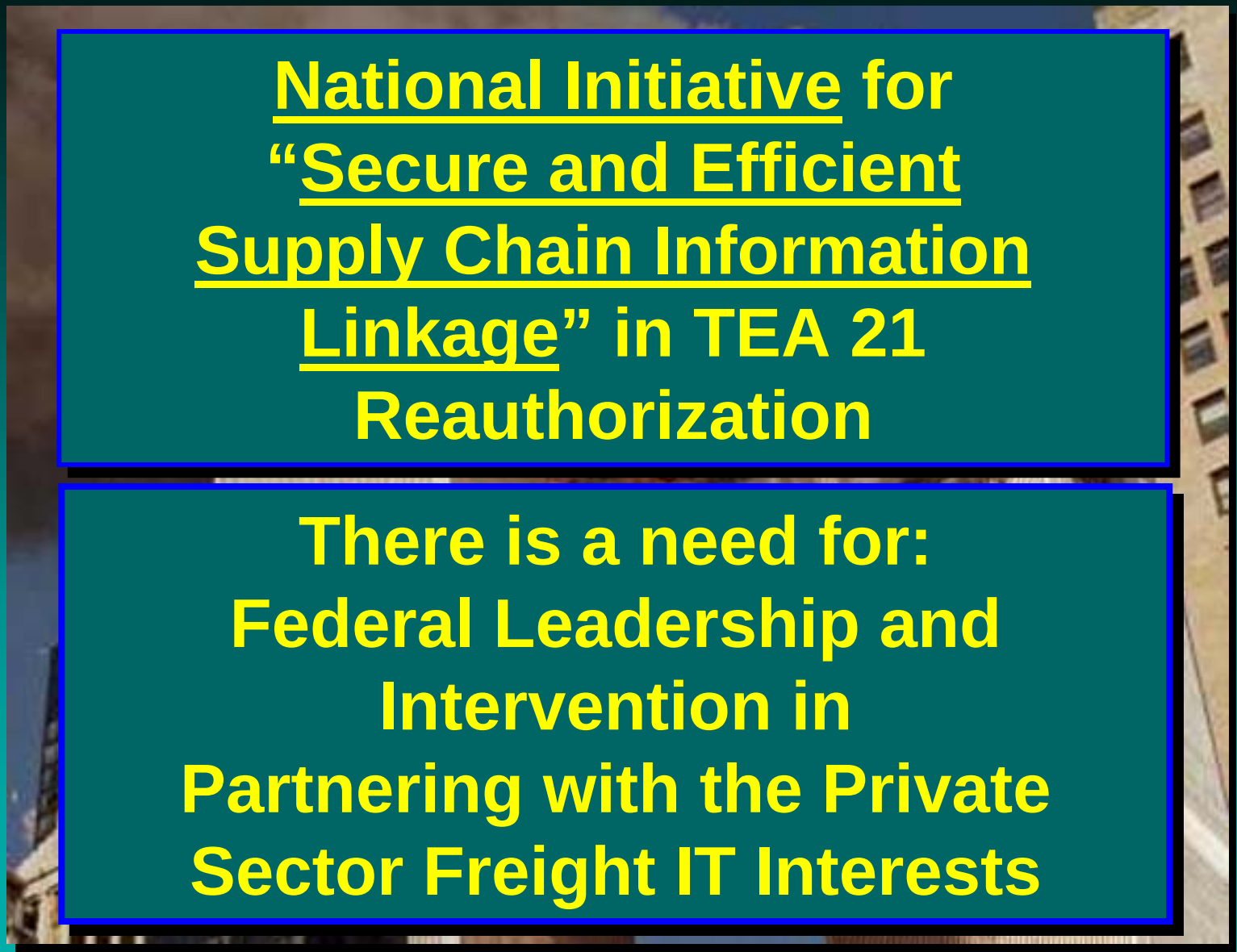

National Initiative for "Secure and Efficient Supply Chain Information Linkage" in TEA 21 Reauthorization

There is a need for: Federal Leadership and Intervention in Partnering with the Private Sector Freight IT Interests

Theme #3: Funding for needed Port & Intermodal Freight Transportation Infrastructure should be contingent on finding *Smart Solutions* with both community and environmental benefits and support.

- Congress must renew & extend our national freight policy mandate & vision – They must take a leadership role in defining a new national freight agenda.

  Ports and Intermodal terminals are no longer able to build their way out of congestion & capacity problems

- Expansion of federal aid program eligibility for freight should depend on creation of multi-state and multi-jurisdictional cooperation and funding fostering community support

Theme #4: New Cross-Cutting Systemic Planning & Implementation Strategies are needed to guide the future of port and intermodal transportation freight development.

- Rising social costs and heightened environmental concerns-mitigation strategies necessitate national leadership on freight transportation issues.

- The nation's failure to accommodate the growing volume of freight transportation needs, will negatively impact all levels of our economy and national collective quality of life… Jobs, Wages, Taxes

Theme #4:Continued… New Cross-Cutting Systemic Planning & Implementation Strategies are needed to guide the future of port and intermodal transportation freight development.

- It is essential that Congress consider a National Freight Transport Research Development Program with a fully collaborative freight operations and management program of pragmatic applied research.

- Multi-State and Jurisdictional Trade Corridors and trade area Multi-modal Transport Consortia should be created to ensure that investment in the national infrastructure is carried out in a rational, nationally beneficial and cost effective manner.

The USCOC invites and encourages your participation, contribution and input to this important study. Suggestions and contributions are already being received through the study's web site at:

uscocstudy.transystems.com

or

(703) 758-8800 Extension #1003

March 5, 2002

Galveston, Texas

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